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## LD 02: Traffic

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### Contents

- Basic commands
- How to use traffic commands
- Set traffic report schedules
- Set report types
- System reports
- Customer reports
- Network report
- Set customer for feature key usage measurement
- Stop printing of title, date and time
- Set traffic measurement on selected terminals
- Set blocking probability for Line Load Control (LLC)
- Set time and date
- Set daily time adjustment
- Set system ID
- Set thresholds
- Perform threshold tests on last reports
- Print last reports

## Basic commands

|                |                                                                  |
|----------------|------------------------------------------------------------------|
| ASUM           | Print Alarm/Exception summary                                    |
| ASUM A         | Print all the alarms that have at least one occurrence           |
| ASUM E         | Print all the alarms that have escalated                         |
| BWTM           | Set the date and time for the clock to move backward             |
| CITM           | Clear Individual Traffic Measurement from TNs                    |
| COPC C R R     | Clear one or more customer report types                          |
| COPN C R R     | Clear one or more network report types                           |
| COPS R R       | Clear one or more system report types                            |
| FWTM           | Set the date and time for the clock to move forward              |
| IDLT 0         | No title is printed unless further data is also printed          |
| IDLT 1         | The title is always printed                                      |
| INVC C R R ... | Print one or more of the last customer reports                   |
| INVN C R R ... | Print one or more of the last network reports                    |
| INVS R R ...   | Print one or more of last system reports                         |
| ITHC C TH      | Perform threshold tests on customer reports                      |
| ITHS TH        | Perform threshold tests on system reports                        |
| SCFT C         | Set the customer to be measured for feature key usage            |
| SCTL X         | Set blocking probability                                         |
| SDTA X X Y     | Set the time of day adjustment                                   |
| SDST           | Enable or disable the automatic daylight savings time adjustment |
| SITM           | Set Individual Traffic Measurement on terminals                  |
| SLLC X         | Activate Line Load Control at Level X                            |
| SOPC C R R     | Set one or more customer report types                            |
| SOPN C R R     | Set one or more network report types                             |
| SOPS R R       | Set one or more system report types                              |
| SSHC C         | Set customer report schedule                                     |
| SSHS           | Set system report schedule                                       |
| SSID SID       | Change the system ID number                                      |
| STAD           | Set the time and date                                            |
| STHC C TH TV   | Set the customer thresholds                                      |
| STHS TH TV     | Set the system thresholds                                        |
| TCFT           | Print current customer being measured for feature key usage      |
| TDST           | Query the daylight savings time adjustment information           |
| TDTA X         | Print the current time of day adjustment                         |
| TITM           | Print the current TNs with Individual Traffic Measurement set    |
| TLLC           | Print current LLC level and blocking probability                 |
| TOPC C         | Print the current customer report types                          |
| TOPN C         | Print the current network report types                           |

|           |                                        |
|-----------|----------------------------------------|
| TOPS      | Print the current system report types  |
| TSHC C    | Print current customer report schedule |
| TSHS      | Print current system report schedule   |
|           |                                        |
| TSID      | Print the current system ID number     |
| TTAD      | Print the current time and date        |
| TTHC C TH | Print the current customer thresholds  |
| TTHS TH   | Print the current system thresholds    |

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## How to use traffic commands

The Traffic Control program is used to set traffic options, system ID, date and time. The conventions used to describe the traffic commands are:

- data entered by the user is shown in upper case, data output by the system is shown in lower case
- a period (.) prompt indicates that the system is ready to receive a new command
- a double dash (--) indicates that the system is ready to receive data
- a <cr> indicates that the return key should be pressed

**Note:** The message TFC000 output on your switch indicates that the traffic program is running.

## Set traffic report schedules

To print current customer report schedule:

```
TSHC C sd sm ed em
sh eh so
d d ...
```

To print current system report schedule:

```
TSHS sd sm ed em
sh eh so
d d ...
```

To set customer report schedule:

```
SSHC C sd sm ed em -- SD SM ED EM
sh eh so -- SH EH SO
d d ... -- D D ...<cr>
```

To set system report schedule:

SSHS sd sm ed em -- SD SM ED EM

sh eh so -- SH EH SO

d d ... -- D D ...<cr>

### **Legend**

C = customer number

D = day of the week:

1 = Sunday

2 = Monday

3 = Tuesday

4 = Wednesday

5 = Thursday

6 = Friday

7 = Saturday

ED = end day (1-31)

EH = end hour (0-23)

EM = end month (1-12)

SD = start day (1-31)

SH = start hour (0-23)

SM = start month (1-12)

SO = schedule options:

0 = no traffic scheduled

1 = hourly on the hour

2 = hourly on the half-hour

3 = every half-hour

### **Example**

To change the system reports schedule:

SSHS 25 4 16 7 -- 1 10 1 12

12 21 2 -- 0 23 1

2 3 4 5 6 -- 1 7<cr>

## Old schedule

start time: April 25 at 12 noon

end time: July 16 at 9 P.M.

frequency: hourly on the half-hour (SO = 2)

days of the week: Monday to Friday

## New schedule

start time: October 1 at 12 midnight

end time: December 1 at 11 P.M.

frequency: hourly on the hour (SO = 1)

days of the week: Sunday and Saturday

**Note 1:** In order to obtain traffic reports at the scheduled intervals, the output device must have prompt USER = TRF in (LD 17). If TRF is not defined for any device, reports are still generated to allow the printing of the last reports.

**Note 2:** Half hour start and end times are not possible.

## Set system ID

Each Meridian 1 system has a unique system ID number (SID) selected from 0000 to 9999. The 4-digit ID number can be printed or set by the following commands.

To print the current SID: TSID sid

To change the SID: SSID sid -- SID

## System reports

To print the current report types: TOPS r r ...

To set one or more report types: SOPS r r ... -- R R ...<cr>

To clear one or more report types: COPS r r ... -- R R ...<cr>

### Legend

R is traffic report type:

- 1 = networks
- 2 = service loops
- 3 = dial tone delay
- 4 = processor load
- 5 = selected terminals
- 7 = junctor group traffic
- 8 = CSL and ISDN/AP links
- 9 = D-channel
- 10 = ISDN GF Transport
- 11 = MISP traffic
- 12 = MISP D-channel management
- 13 = MISP messaging
- 14 = ISDN BRI trunk DSL system report
- 15 = MPH traffic

**Note 1:** To use the print command enter a space (not a carriage return) after the customer number.

**Note 2:** If no reports are currently set, NIL is output by the system.

## Customer reports

To print the current report types: TOPC C r r ...

To set one or more report types: SOPC C r r ... -- R R ....<cr>

To clear one or more report types: COPC C r r ... -- R R ....<cr>

### Legend

C = customer number

R is traffic report type:

- 1 = networks
- 2 = trunks
- 3 = customer console measurements
- 4 = individual console measurement
- 5 = feature key usage
- 6 = Radio Paging
- 7 = Call Park
- 8 = messaging and auxiliary processor links
- 9 = Network Attendant Service
- 10 = ISPC links establishment
- 11 = useage of broadcasting routes

**Note 1:** To use the print command enter a space (not a carriage return) after the customer number.

**Note 2:** If no reports are currently set, NIL is output by the system. For report 5, see “Set customer for feature key usage measurement”.



## Network reports

To print the current report types: TOPN C r r ...

To set one or more report types: SOPN C r r ... -- R R ....<cr>

To clear one or more report types: COPN C r r ... -- R R ....<cr>

### Legend

C = customer number

R is traffic report type:

1 = route list measurements

2 = network class of service measurements

3 = incoming trunk group measurements

**Note 1:** To use the print command enter a space (not a carriage return) after the customer number.

**Note 2:** If no reports are currently set, NIL is output by the system.

## Set customer for feature key usage measurement

To print current customer being measured: TCFT c

To set the customer to be measured: SCFT c -- C

**Note:** Where C is the customer number. Only one customer can have feature measurement set at a time.

## Stop printing of title, date and time

It is possible to suppress the printing of the title (TFS000), date and time in cases where traffic measurement is scheduled but no other data is printed. The command format is:

IDLT 0,1

0 = no title is printed unless further data is also printed

1 = the title is always printed

## Set traffic measurement on selected terminals

These commands are used to print, set and clear the Individual Traffic Measurement (ITM) class of service for given terminal numbers for traffic report TFS005. Telephone sets, trunk and DTI channels can have this class of service. Terminals with ITM set are included in the groups for which Line Traffic Measurements are recorded.

**Note:** Do not use these commands on superloops or octal density cards (NT8D02, NT8D03, NT8D09, NT8D14, or NT8D16).

To print the current TNs with ITM set: TITM

### Example

TITM

|             |                                            |
|-------------|--------------------------------------------|
| shelf 4 0   | (all units on loop 4 shelf 0 have ITM set) |
| loop 5      | (all units on loop 5 have ITM set)         |
| tn 11 3 4 1 | (unit on TN 11 3 4 1 has ITM set)          |
| card 13 2 1 | (all units on card 13 2 1 has ITM set)     |
| chnl 34 18  | (loop 34 channel 18 has ITM set)           |

To set ITM on terminals: SITM

**Example**

```
SITM          (prints current settings)
shelf 4 1     (current settings)
loop 05       (all units on loop 5 have ITM set)
tn 11 3 4 1   (unit on TN 11 3 4 1 has ITM set)
card 13 2 1   (all units on card 13 2 1 has ITM set)
chnl 34 18    (only loop 34 channel 18 has ITM set)
-- 7          (set ITM on all units on this loop)
-- 6 1        (set ITM on all units this shelf, or on channel 1)
-- 8 1 1      (set ITM on all units on this card)
-- 8 1 1 1    (set ITM on this unit)
-- 30 18      (set ITM on this loop 30 channel 18)
-- <cr>       (stop "--" prompt)
```

To clear line traffic TNs: CITM (the ITM class of service is removed from all units)

**Example**

```
CITM          (print current settings)
shelf 4 1     (all units on loop 4 shelf 1 have ITM set)
loop 05       (all units on loop 5 have ITM set)
tn 11 3 4 1   (unit on TN 11 3 4 1 has ITM set)
card 19 1 1   (all units on card 13 2 1 has ITM set)
chnl 34 18    (only loop 34 channel 18 has ITM set)
-- 4 1        (clear ITM on all units on this loop 4 shelf 1)
-- 5          (clear ITM on all units on this loop)
-- 11 3 4 1   (clear ITM on this unit)
-- 19 1 1     (clear ITM on all units on this card)
-- 34 18      (clear ITM on this loop 34 channel 18)
-- <cr>       (stop "--" prompt)
```

To clear line traffic TNs: CITM (the ITM class of service is removed from all units)

## Set blocking probability for Line Load Control (LLC)

To print current LLC level and blocking probability: TLLC

To set blocking probability: SCTL **X** aaa

To activate Line Load Control at level **X** : SLLC **X**

### Legend

x = F, S or T (for LLC level F, S, or T)

aaa = blocking probability in %

## Set time and date

To print the current time and date:

TTAD day-of-week day month year hour minute second

### Example

STAD WED 24 11 1976 15 41 49

To set the time and date:

STAD DAY MONTH YEAR HOUR MINUTE SECOND

### Example

STAD 24 11 1976 15 41 49

**Note:** Except for the year, the other entries in the time of day output are 2-digit numbers. The year may be any year from 1901 to 2099 inclusive. It may be input as a full 4-digit field or as a 2-digit short form. The 2-digit short form is assumed to be in the range 1976 to 2075 and the appropriate addition is made when calculating the day-of-week and leap years.

## Set daily time adjustment

The time of day can be adjusted during the midnight routines to compensate for a fast or slow system clock.

To print the current adjustment: TDTA X y

To set the adjustment: SDTA X y -- X Y

### Legend

x = 0 (negative increment) or 1 (positive increment)

y = 0-60 second adjustment in increments of 100 ms

*Note:* SDTA and TDTA commands are not applicable to C-processor machines (11C, 51C, 61C, 81 and 81C).

## Set and print Daylight Savings Time

With X11 release 19 and later, the daylight savings time adjustment can be programmed to take place automatically. You can set the date to change to daylight savings, and to return to standard time. This information can be queried at any time.

The following commands are accepted by this program for this capability. The system clock **MUST ALREADY** be set for the daylight savings time to be updated. This information survives sysload.

- FWTM = Set the date and time for the clock to move forward.
- BWTM = Set the date and time for the clock to move backward.
- SDST = Enable or disable the automatic change.
- TDST = Query the change information.

To implement these commands, use the following.

- FWTM <month> <week> <day> <hour>

month = 1-(4)-12 [January-December]

week = (1)-5, L [1st-5th, L is the last week of the month]

day = (1)-7 [Sunday-Saturday]

hour = 1-(2)-22 [Midnight-11:00 pm]

- BWTM <month> <week> <day> <hour>

month = 1-(10)-12 [January-December]

week = (1)-5, L [1st-5th, L is the last week of the month]

day = (1)-7 [Sunday-Saturday]

hour = 1-(2)-22 [Midnight-11:00 pm]

- SDST ON, (OFF)

ON enables the automatic change capability

OFF disables the automatic change capability

- TDST <CR>

The output reflects the input format to indicate the change information.

## Set thresholds

To print the current system thresholds: TTHS TH tv

To set the system thresholds: STHS TH tv -- TV

The system thresholds (TH) and range of values (TV) are:

- 1 = dial tone speed (range 0.00% to 99.9%)
- 2 = loop traffic (range 000 to 999 CCS)
- 3 = junctor group traffic (range 0000 to 9999 CCS)
- 4 = superloop traffic (range 0000 to 9999 CCS)

To print the current customer thresholds: TTHC C TH tv

To set the customer thresholds: STHC C TH tv -- TV

### Legend

The thresholds (TC) and range of values (TV) for customer C are:

- 1 = incoming matching loss (TV range 00.0% to 99.9%)
- 2 = outgoing matching loss (TV range 00.0% to 99.9%)
- 3 = average Speed of Answer (TV range 00.0 to 99.9 seconds)
- 4 = percent All Trunks Busy (TV range 00.0% to 99.9%)
- 5 = percent OHQ Overflow (TV range 00.0% to 99.9%)

## Perform threshold tests on last reports

To perform threshold tests on customer reports: ITHC C TH

### Legend

C = customer number

TH is the threshold type:

- 1 = incoming matching loss
- 2 = outgoing matching loss
- 3 = average speed of answer
- 4 = percent all trunks busy
- 5 = percent OHQ overflow

To perform threshold tests on system reports: ITHS TH

## Legend

TH is the threshold type:

- 1 = dial tone speed
- 2 = loop traffic
- 3 = junctor group traffic
- 4 = superloop traffic

*Note:* When a threshold test passes, OK is output.

## Print last reports

The last traffic reports can be printed or tested against threshold values. Data accumulating for the next reports is not accessible.

To print one or more of the last customer reports: INVC C R R ...

## Legend

C = customer number

R is traffic report type:

- 1 = networks
- 2 = trunks
- 3 = customer console measurements
- 4 = individual console measurement
- 5 = feature key usage
- 6 = Radio Paging
- 7 = Call Park
- 8 = messaging and auxiliary processor links
- 9 = Network Attendant Service
- 10 = ISPC links establishment
- 11 = usage of broadcasting routes



To print one or more of the last network reports: INVN C R R ...

**Legend**

C = customer number

R is traffic report type:

- 1 = route list measurements
- 2 = network class of service measurements
- 3 = incoming trunk group measurements

To print one or more of last system reports: INVS R R ...

**Legend**

R is traffic report type:

- 1 = networks (per loop)
- 2 = services
- 3 = dial tone delay
- 4 = processor load
- 5 = selected terminals
- 7 = junctor group traffic
- 8 = CSL and ISDN/AP links
- 9 = D-channel
- 10 = ISDN GF Transport
- 11 = MISP traffic
- 12 = MISP D-channel management
- 13 = MISP messaging
- 14 = ISDN BRI trunk DSL system report
- 15 = MPH traffic

**Print alarm and exception filter summary**

Release 19 and later provide alarms status summaries in this overlay. The alarms printed by this overlay are discussed in the *x11 Software Management* NTP.

Enter any of the following commands at the dot (.) prompt.

| Command | Description                                            | Release       |
|---------|--------------------------------------------------------|---------------|
| ASUM    | Print Alarm/Exception summary                          | alm_filter-19 |
| ASUM A  | Print all the alarms that have at least one occurrence | alm_filter-21 |
| ASUM E  | Print all the alarms that have escalated               | alm_filter-21 |